

What is claimed is:

1. A medical device for slidable use with a guidewire having a first diameter and a distal stop having a second diameter greater than the first diameter, the medical device comprising:
 - an elongate tubular member having a proximal end and a distal end with a guide wire receiving lumen extending therethrough, a distal portion of the guidewire lumen having an inner diameter of the substantially the same magnitude as the first diameter;
 - and
 - a tip disposed at the distal end of the elongate tubular member, the tip have a first portion having a distal taper and a radially inextensible ring distal the first portion.
2. The medical device of claim 1, further comprising a therapeutic device disposed on a distal portion of the catheter tube, the tip disposed distal of the therapeutic device.
3. The medical device of claim 2, further comprising a second portion distal the ring, the second portion tapering distally more sharply than the first portion.
4. The medical device of claim 1, wherein the first portion is softer and more flexible than a proximal portion of the medical device.

5. The medical device of claim 1, wherein the ring is the distalmost portion of the tip.
6. The medical device of claim 1, wherein the medical device is an angioplasty device.
7. The medical device of claim 1, wherein the medical device is an intravascular filter.
8. The medical device of claim 1, wherein the medical device is an intravascular guide catheter.
9. A medical device, comprising:
an elongate tubular member having a proximal end and a distal end with a guidewire receiving lumen extending therethrough, a distal portion of the guidewire lumen having an inner diameter of the substantially the same magnitude as the first diameter;
and
a tip disposed at a distal end of the elongate tubular member and having a distal end, a proximal end and a lumen therethrough, the tip having an elastic portion and a radially inextensible distal portion.
10. The medical device of claim 9, wherein the distal portion is an extremity.

11. The medical device of claim 10, wherein the extremity is a distalmost extremity.
12. The medical device of claim 9, wherein the distal portion comprises a ring having a lumen therethrough.
13. The medical device of claim 9, wherein the distal portion comprises a wire.
14. The medical device of claim 13, wherein the wire is a coil.
15. The medical device of claim 9, wherein the distal portion further comprises anchoring sites to attach to a proximal portion of the tip.
16. The medical device of claim 9, wherein the distal portion is machined.
17. The medical device of claim 9, wherein the distal portion is formed by deposition.
18. The medical device of claim 9, wherein the tip comprises an amorphous polymer and the distal portion comprises a locally crystalline section thereof.

19. The medical device of claim 9, wherein the distal portion comprises a non-compliant plastic band.

20. The medical device of claim 9, wherein the tip further comprises a flexible portion proximate the distal portion.

21. The medical device of claim 20, wherein the distal portion is a distalmost extremity and wherein the flexible portion is proximal the distal portion, wherein the flexible portion tapers from a first outer diameter to a second outer diameter less than the first outer diameter.

22. The medical device of claim 21, wherein the first outer diameter is equal to a first thickness and a first inner diameter both at the first outer diameter, wherein a distal thickness at a third outer diameter distal the first outer diameter and the first inner diameter are less than the third outer diameter.

23. The medical device of claim 22, wherein the flexible portion comprises an inner surface concave in a first plane normal to a longitudinal axis and a second plane normal to the first plane.

24. The medical device of claim 20, wherein the flexible portion comprises a tube that has a first portion extending distally and an inner surface, and a second portion

extending proximally from the first portion within the inner surface of the first portion, the distal portion proximate the proximalmost end of the second portion.

25. A medical device, comprising:

an elongate catheter having a proximal end, a distal end, and a lumen extending therethrough; and

a tip disposed at the distal end of the elongate catheter, the tip extending distally of the distal end of the catheter, the tip comprising a soft body portion and a rigid ring distal the soft body portion.

26. A medical device, comprising;

an elongate catheter having a proximal end, a distal end, and a lumen extending therethrough;

a tip disposed at the distal end of the elongate catheter having a first region that tapers distally and a second region distal the first region that tapers distal more sharply than the first region.

27. The medical device of claim 26, wherein the second region is the distalmost portion of the tip.

28. The medical device of claim 26, wherein the second region is a radius.

29. The medical device of claim 26, wherein the second region is formed by reflow.

30. The medical device of claim 26, further comprising a marker band distal the first region and proximal the second region.

31. The medical device of claim 26, further comprising a rigid annular ring distal the first region and proximal the second region.
32. The medical device of claim 31, wherein the ring comprises a polyimide.
33. A method of making a catheter tip, comprising the steps of:
 - providing a first distal tip precursor section made from a polymer having a groove therein;
 - providing a marker band;
 - inserting the marker band into the groove; and
 - reflowing the polymer of the first distal tip precursor section to produce a distal tip.
34. The method of claim 33, wherein the groove has a first surface opposite a second surface.
35. The method of claim 34, wherein the distal tip precursor has a central longitudinal axis, and wherein a central longitudinal axis of the first surface is coaxial with the central longitudinal axis of the distal tip precursor.
36. The method of claim 33, further comprising the steps of:
 - providing a second distal tip precursor section; and
 - joining the first and second distal tip precursor sections after the step of inserting the marker band.
37. The method of claim 33, wherein the marker band is embedded within the distal tip after the step of reflowing the polymer.